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09/376,017	08/19/1999	STANLEY YAMANE	ATV-005	5919

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EXAMINER

SALAD, ABDULLAHI ELM I

ART UNIT PAPER NUMBER

2157

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/376,017

Applicant(s)

YAMANE ET AL.

Examiner

Salad E Abdullahi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-18 and 20-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-18, 20-22, 26-27 and 32-33 is/are rejected.
- 7) ☒ Claim(s) 23-25, 28-31 and 34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6</u> . | 6) <input type="checkbox"/> Other: _____  |

***Response***

1. The response filed on 7/15/2004 has been received and made of record.
2. Applicants remarks filed on 7/15/2004 with regard to claims 1-10, 12-18, 20-22 and 26-27 have been fully considered but they are not persuasive for the following reasons.

***Allowable Subject Matter***

3. Claims 23-25, 28, 29-31 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant alleges Christie does not describe "identifying changes to files in the master source file set on a master computer". Examiner respectfully disagrees. First, Christie discloses at each site there is master computer(i.e., a central file server) that is also used to store the master source file set (i.e., the local copy of each replicated database or local replica which represent the master source set of the local site). Furthermore, Christie discloses replicating agent of the local determines or identifies changes/updates made to this local replica database (see col. 3, lines 9-21 col. 5, lines 13-25).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious

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at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-10, 12-18, 20-22, 26-27 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christie U.S. Patent No. 6,182,117[hereinafter Christie] in view of Huges et al., U.S. Patent No. 5,892,908[hereinafter Huges].

As per claim 1, Christie discloses a method for notifying a computer of changes to a master source file (replicating changes in a source file set (i.e., the local site A database on a destination file system), comprising the steps of:

- (a) identifying changes in the files in the master source file set (i.e., local replica database) on master computer)(central file server) (identifying changes made to objects in local site database (see col. 3, lines 9-21 and col. 5, lines 13-20);
- (c) storing the identified changes in a modification list (storing updates in an event table), (see col. 5, lines 13-37), comprising unique identifiers (UID) (see col. 3, lines 47-65);
- (d) transmitting the modification list to an agent having access to a destination file system (see col. 5, lines 13-37); and
- (e) receiving a response from the computer indicating that the identified changes are installed (col. 6, lines 24-30 and col. 19, lines 21-27).

Christie., is silent regarding: (b) converting local host address of the files to uniform resource locator.

Nonetheless, converting local host address of the files to uniform resource locator would have been an obvious modification to Christie's system as evidenced by Huges et al., . Huges disclose a system for converting local host address of the files to uniform

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resource locator (see figs. 3, 4 and col. 2, lines 43-60 and col. 5, lines 23-26).

Furthermore, figure 4, shows on the server side hard drive the every local file 54 has URL address which indicate the path names of the has been converted to uniform resource locator address. In addition, storing server files with their uniform resource would be beneficial to Christie's because it easier for servers to replicate files with URL address to other servers. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teaching of Huge into Christie's system by converting/translating the local host/server address of the files of replicated sites to uniform resource locator addresses before the files transmitted the other replicated sites such that replicated updates can be efficiently and quickly processed or synchronized, thereby enhancing system response time.

In considering claim 2, "official notice" is taken that both the concept and advantage of utilizing web cache servers is well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize cooperating cache servers as web cache servers are known to dynamically minimize latency.

In considering claims<sup>3</sup>, Christie discloses the method of claim 1, wherein the identifying step comprises the steps of:

inspecting a current version of the master a set of files (see col. 3, line 65 to col. 4, line 10, and col. 5, lines 13-37);

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comparing the current master file source set to a file of attributes of the previous version of the master source file set (see col. 3, line 65 to col. 4, line 10, and col. 5, lines 13-37).

In considering claim 4, Christie discloses the method of claim 3, wherein the comparing step comprises comparing a file attributes of a file of the master source file set to a file of attributes of the previous version of the master source file set (see col. 3, line 65 to col. 4, line 10, and col. 5, lines 13-37).

In considering claim 5, Christie discloses the method of claim 4, wherein the file attributes comprises modification time (see col. 11, line 64 to col. 12, line 10).

In considering claim 6, Christie discloses a system, wherein the identifying step comprises the steps of:

- inspecting a set of files, comparing the set of files to an earlier-recorded set (see col. 3, line 65 to col. 4, line 10, and col. 5, lines 13-37);

- installing a device driver to perform file operations and recording, by the device driver, changes to the source file set ( see col. 10, lines 16-20); and

- receiving a manifest (table ) describing changes to the source file set (see col. 3, line 65 to col. 4, line 10, and col. 5, lines 13-37).

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In considering claim 7 Christie discloses the method of claim 1, wherein the identifying step comprises: receiving a manifest describing changes to the master source file(see col. 3, lines 9-21 and col. 5, lines 13-20);

In considering claims 8, 9 and 10, Christie the method of claim 1, system further comprising the step of calling a script of user configurable instruction (see col. 3, lines 13-24 and col. 9, lines 44-53).

As per claim 12 Christie discloses a method for replicating changes in master source file set on a destination file system and for notifying one or more computers of the changes (replicating changes in a source file set i.e., the local site A database on a destination file system), comprising the steps of:

- identifying changes in the files in the master source set on master computer)(central file server) (identifying changes made to objects in local site database (see col. 3, lines 9-21 and col. 5, lines 13-20);
- storing the identified changes in a modification list (storing updates in an event table), (see col. 5, lines 13-37), comprising unique identifiers (UID) (see col. 3, lines 47-65);
- transmitting the modification list to an agent having access to a destination file stem (see col. 5, lines 13-37); and
- receiving a response from the computer indicating that the identified changes are installed (col. 6, lines 24-30 and col. 19, lines 21-27).

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Christie., is silent regarding: converting local host address of the files to uniform resource locator.

Nonetheless, converting local host address of the files to uniform resource locator would have been an obvious modification to Christie's system as evidenced by Huges et al., . Huges et al., disclose a system for converting local host address of the files to uniform resource locator (see figs. 3, 4 and col. 2, lines 43-60 and col. 5, lines 23-26). Furthermore, figure 4, shows on the server side hard drive the every local file 54 has URL address which indicate the path names of the has been converted to uniform resource locator address. In addition, storing server files with their uniform resource would be beneficial to Christie's because it easier for servers to replicate files with URL address to other servers. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teaching of Huges into Christie's system by converting/translating the local host/server address of the files of replicated sites to uniform resource locator addresses before the files transmitted the other replicated sites such that replicated updates can be efficiently and quickly processed or synchronized, thereby enhancing system response time.

In considering claim 13, "official notice" is taken that both the concept and advantage of utilizing web cache servers is well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize cooperating cache servers as web cache servers are known to dynamically minimize latency.



In considering claim 14, Christie discloses the step of converting the first list to a second list (see col. 11, lines 20-37).

As per claim 15 Christie discloses a system for notifying a computer of changes to a source file (replicating changes in a source file set (i.e., the local site A database on a destination file system), comprising the steps of:

- identifying changes in the files in the master source set on master computer)(central file server) (identifying changes made to objects in local site database (see col. 3, lines 9-21 and col. 5, lines 13-20);
- storing the identified changes in a modification list (storing updates in an event table), (see col. 5, lines 13-37), comprising unique identifiers (UID) (see col. 3, lines 47-65);
- transmitting the modification list to an agent having access to a destination file stem (see col. 5, lines 13-37); and
- receiving a response from the computer indicating that the identified changes are installed (col. 6, lines 24-30 and col. 19, lines 21-27).

Christie., is silent regarding: converting local host address of the files to uniform resource locator.

Nonetheless, converting local host address of the files to uniform resource locator would have been an obvious modification to Christie's system as evidenced by Huges et al., . Huges et al., disclose a system for converting local host address of the files to

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uniform resource locator (see figs. 3, 4 and col. 2, lines 43-60 and col. 5, lines 23-26).

Furthermore, figure 4, shows on the server side hard drive the every local file 54 has URL address which indicate the path names of the has been converted to uniform resource locator address. In addition, storing server files with their uniform resource would be beneficial to Christie's because it easier for servers to replicate files with URL address to other servers. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teaching of Huge into Christie's system by converting/translating the local host/server address of the files of replicated sites to uniform resource locator addresses before the files transmitted the other replicated sites such that replicated updates can be efficiently and quickly processed or synchronized, thereby enhancing system response time.

In considering claim 16, Christie., disclose a computer system, comprising:

- a manager (agent manager) for managing the computer system( see fig. 3a, element 320);
- Host (i.e. site A ) comprising central file server for receiving requests (see col. 3, lines 9-24);
- a content distributor (replicator 308 which act as server agent) in communication with the host and the manger, the content distributor for providing notification of changes to a source file (see col. 3, lines 9-65 and col. 5, lines 13-20);and
- receiving a response from the computer indicating that the identified changes are installed (col. 6, lines 24-30 and col. 19, lines 21-27).

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Christie., is silent regarding: converting local host address of the files to uniform resource locator.

Nonetheless, converting local host address of the files to uniform resource locator would have been an obvious modification to Christie's system as evidenced by Huges et al., . Huges et al., disclose a system for converting local host address of the files to uniform resource locator (see figs. 3, 4 and col. 2, lines 43-60 and col. 5, lines 23-26). Furthermore, figure 4, shows on the server side hard drive the every local file 54 has URL address which indicate the path names of the has been converted to uniform resource locator address. In addition, storing server files with their uniform resource would be beneficial to Christie's because it easier for servers to replicate files with URL address to other servers. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teaching of Huges into Christie's system by converting/translating the local host/server address of the files of replicated sites to uniform resource locator addresses before the files transmitted the other replicated sites such that replicated updates can be efficiently and quickly processed or synchronized, thereby enhancing system response time.

As per the computer system includes a web cache system. Although, Christie, and Huges et al., are silent the computer system includes a web cache system.

However, a web cache system is well known system, part of web service system.

Furthermore, Christie discloses replicating data between computer sites, which are located remotely from each other indicating this replication process, can obviously be utilized in web cache system in order to replicate data from a particular web site to a

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web cache servers closer to the client computers. Therefore, it would have been obvious to one having ordinary skill in art at the time of the invention to incorporate the a web cache server system into the system of Christie and Huge because web cache servers are know to dynamically minimize latency.

In considering claim 17, Christie., discloses a system further comprising a traffic manager (moderator 314) for directing requests (see col. 10, lines 34-53).

In considering claims 18, Christie disclose substantial features of the claimed invention as discussed above with respect to claim 16, including:

- identifying changes in the source file set (identifying changes made to objects in local sites database), (see col. 3, lines 9-65 and col. 5, lines 13-20); storing the identified changes in a modification list (storing updates in an event table), (see col. 5, lines 13-37), comprising unique identifiers (UID) (see col. 3, lines 47-65);
- transmitting the modification list to an agent (340) having access to a destination file stem (see col. 5, lines 13-37); and
- receiving a response from the computer indicating that the identified changes are installed (col. 6, lines 24-30 and col. 19, lines 21-27).

Christie., is silent regarding: converting local host address of the files to uniform resource locator.

Nonetheless, converting local host address of the files to uniform resource locator

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would have been an obvious modification to Christie's system as evidenced by Huges et al., . Huges et al., disclose a system for converting local host address of the files to uniform resource locator (see figs. 3, 4 and col. 2, lines 43-60 and col. 5, lines 23-26). Furthermore, figure 4, shows on the server side hard drive the every local file 54 has URL address which indicate the path names of the has been converted to uniform resource locator address. In addition, storing server files with their uniform resource would be beneficial to Christie's because it easier for servers to replicate files with URL address to other servers. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teaching of Huges into Christie's system by converting/translating the local host/server address of the files of replicated sites to uniform resource locator addresses before the files transmitted the other replicated sites such that replicated updates can be efficiently and quickly processed or synchronized, thereby enhancing system response time.

As per claim 20, Christie discloses a system for notifying a computer of changes to a source file (replicating changes in a source file set (i.e., the local site A database on a destination file system), comprising the steps of:

- identifying changes in the files in the master source set on master computer)(central file server) (identifying changes made to objects in local site database (see col. 3, lines 9-21 and col. 5, lines 13-20);

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- storing the identified changes in a modification list (storing updates in an event table), (see col. 5, lines 13-37), comprising unique identifiers (UID) (see col. 3, lines 47-65);
- transmitting the modification list to an agent having access to a destination file stem (see col. 5, lines 13-37); and
- receiving a response from the computer indicating that the identified changes are installed (col. 6, lines 24-30 and col. 19, lines 21-27).

Christie., is silent regarding: converting local host address of the files to uniform resource locator.

Nonetheless, converting local host address of the files to uniform resource locator would have been an obvious modification to Christie's system as evidenced by Huges et al., . Huges et al., disclose a system for converting local host address of the files to uniform resource locator (see figs. 3, 4 and col. 2, lines 43-60 and col. 5, lines 23-26). Furthermore, figure 4, shows on the server side hard drive the every local file 54 has URL address which indicate the path names of the has been converted to uniform resource locator address. In addition, storing server files with their uniform resource would be beneficial to Christie's because it easier for servers to replicate files with URL address to other servers. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teaching of Huges into Christie's system by converting/translating the local host/server address of the files of replicated sites to uniform resource locator addresses before the files transmitted the

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other replicated sites such that replicated updates can be efficiently and quickly processed or synchronized, thereby enhancing system response time.

considering claim 21, Christie discloses the method of claim 4, wherein the file attributes is stored in a list of file attributes(see col. 11, line 64 to col. 12, line 10).

In considering claim 22, Huge discloses a method, wherein the prefix of a source directory of the local host corresponds to a particular prefix of possible URLs and characters which are not allowed in the URL such as space are encoded to a specified rule (see figs. 3, 4 and col. 3, lines 15-60 ).

In considering claims 26-27 and 32-33 "official notice" is taken that both the concept and advantage of transmitting modification list when a predetermined number of server or percentage of servers running in one or more computers have indicated they are ready to accept updated content is well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to transmit modification list when a predetermined number of server or percentage of servers running in one or more computers have indicated they are ready to accept updated content in order to avoid unnecessary transmission to the network to preserve bandwidth.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### **Conclusion**

7. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Salad E Abdullahi whose telephone number is 703-308-8441. The examiner can normally be reached on 8:30 - 5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 703-305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status



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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Any response to this action should be mailed to:**


Box AF

Commissioner of Patents and Trademarks  
Washington, DC 20231

**or faxed to: (703- 872-9306)**

As

10/15/2004

  
ARIO ETIENNE  
SUPERVISORY PATENT EXAMINER  
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